

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:

Junming Le, Jan Vilcek, Peter Daddona, John Ghrayeb, David Knight and  
Scott Siegel

Application No.: 09/927,703

Group: 1644

Filed: August 10, 2001

Examiner: Phillip Gambel

Confirmation No.: 8249

For: ANTI-TNF ANTIBODIES AND PEPTIDES OF HUMAN TUMOR NECROSIS  
FACTOR

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
<u>5-24-05</u>	<u>Jennifer Torpey</u>
Date	Signature
<u>Jennifer Torpey</u>	
Typed or printed name of person signing certificate	

DECLARATION OF JAN VILCEK, M.D.  
UNDER 37 C.F.R. § 1.132

Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Jan Vilcek, M.D., of 920 5th Avenue New York, NY 10021, U.S.A., declare that:


1. I am a co-inventor of the subject matter described and claimed in the subject application (United States Patent Application Serial No. 09/927,703, filed August 10, 2001). The subject application was filed on behalf of New York University, 550 First Avenue, Rm. MSB153, New York, NY 10016, U.S.A., and Centocor, Inc., 200 Great Valley Parkway, Malvern, PA, 19355-1307, U.S.A.

2. I received my M.D. degree from Comenius University Medical School, Bratislava, Czechoslovakia in 1957. I received my C.Sc. (Ph.D. equivalent) degree in Virology from the Institute of Virology, Czechoslovak Academy of Science, Bratislava, Czechoslovakia in 1962. A copy of my curriculum vitae, which describes my educational and professional experience, is attached.
3. I have been employed at New York University since 1965. My current position is Professor in the Department of Microbiology.
4. I have read the above-identified patent application and the presently pending claims. I have also read the Final Office Action dated June 21, 2004.
5. I note that the Examiner stated in the Final Office Action, dated June 21, 2004, that in order to satisfy the enablement requirement, the cA2 antibody is required to be known and readily available to the public or obtainable by a repeatable method set forth in the specification. I also understand that the deposit of the cell line is not required where the required biological materials can be obtained from publicly available material with only routine experimentation and a reliable screening test.

The present patent application enables one of skill in the art to carry out the claimed invention and would also enable human and humanized anti-TNF antibodies or antigen-binding fragments thereof. The cA2 antibody is derived from the A2 antibody. The A2 antibody was readily available to the public on the priority date of the instant patent application, March 18, 1991, and was continuously readily available to the public thereafter. On that date, New York University had a general policy of furnishing third parties with a sample of the A2 antibody, should that third party wish to carry out experiments using the A2 antibody. I have provided antibodies to researchers who requested them. For example, in a letter to me dated March 19, 1992, Dr. Vladimir Lackovic, who was, at the time, at the Institute of Virology in Bratislava (now Slovakia), requested antibodies to tumor necrosis factor (TNF). I replied to Dr. Lackovic in a letter dated April 19, 1992, stating that I sent him monoclonal antibodies to tumor necrosis

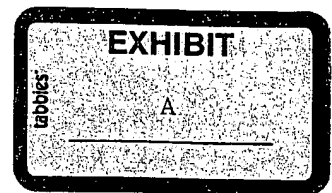
factor alpha (TNF- $\alpha$ ). These antibodies were A2 antibodies. A copy of my letter is attached as Exhibit A. Exhibit B is a translation of Exhibit A. These Exhibits clearly indicate that Applicants made the A2 antibody readily available to the public.

6. I declare that all statements made in this Declaration of my own knowledge are true and that all statements made on information and belief are believed to be true. Moreover, these statements are made with the knowledge that willful false statements and the like made by me are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. I attest that I translated Exhibit A from the Slovak language to English and that the translation of the Exhibit is true and accurate.

  
Jan Vilcek, M.D.  
5/2/05  
Date

Attachments

Curriculum vitae  
Exhibits A and B



Department of Microbiology  
550 First Avenue, New York, NY 10016

Tel: (212) 263-5315

Fax: (212) 263-8276

Jan Vilček, M.D.  
Professor

New York, 19. 4. 1992

Milý Vlado,

Tvoj list sa sem konečne zatúlal -  
nebol poslaný letecky (ste na tom finančne  
už tak zle, že 1 Kčs rozdiel v poštovnom  
hrá úlohu?) a buďajší poštári asi mali  
problém vylúštiť adresu, hoci bola správna!

Dnes sme Ti poslali MAb proti TNF- $\alpha$ .  
Poslali sme zatiaľ pool média z hybridómových  
kultúr (nepurifikovaný a nekonzentrováný).  
V nezriedenej forme neutralizuje aspoň  
5 ng/ml TNF- $\alpha$  a tak na antivirálnu po-  
kusy o ktorých píšeš by to malo stačiť.  
Ak ešte môžeme poslať aj purifikovaný  
IgG.

Samozrejme, že by som sa veľmi rád možnosti  
ďalšej spolupráce. Mali by ste záujem pripraviť  
MAb proti proteínu [REDACTED] ~~interferón~~ ktorý  
sme izolovali v našom laboratóriu? Príkla-  
dám informácie o [REDACTED]. Medzitým sme

ho vyprodukovali v insektových kultúrach  
a máme ho vypurifikovaný. Viem že existujú  
mechanizmy ako pre takúto spoluprácu  
získať peniaze od NIH. Čo si o tom myslíš?

Mnoho pozdravov Tebe a Lacovi.

Srdcečne

John



TRANSLATION OF LETTER FROM  
JAN VILCEK TO VLADIMIR LACKOVIC  
DATED: APRIL 19, 1992

Translated by Dr. Jan Vilcek

Dear Vlado,

Your letter has finally arrived here, it was not sent by air mail (are you so poor that a difference of one Kcs plays a role?) and the postman here probably had a problem deciphering the address even though it was correct!

Today we sent you mAbs against TNF- $\alpha$ . We have sent you so far a pool of media from hybridoma cultures (unpurified and unconcentrated). In undiluted form it neutralizes at least 5 ng/ml of TNF- $\alpha$  and so it should be sufficient for the antiviral experiments you mentioned. If you wish we can also send you purified IgG.

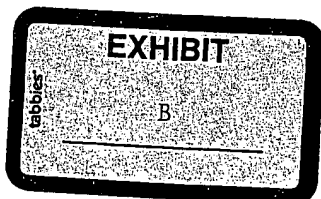
Of course, I would welcome a possibility of a further collaboration. Would you be interested in the preparation of mAb against the protein [redacted] which we isolated in our laboratory? I am attaching information about [redacted]. In the meantime, we produced it in insect cultures and we have it purified. I know that there are mechanisms of how to obtain money for such collaboration from the NIH. What do you think about this?

Best regards to you and Laco.

Cordially,

Jan

@PFDesktop\:\ODMA\MHODMA\HBSR05;iManage;508918;1



## CURRICULUM VITAE

### Jan T. Vilcek

Home Address: 920 Fifth Avenue, New York, NY 10021

Date and Place of Birth: June 17, 1933; Bratislava, Czechoslovakia

Education:

Comenius University Medical School, Bratislava; M.D., 1957

Institute of Virology, Czechoslovak Academy of Sciences, Bratislava; C.Sc.  
(equivalent to Ph.D.), 1962

Professional Positions and Appointments:

1973 - present	Professor of Microbiology New York University School of Medicine
1983 - present	Head, Cytokine Research Unit, New York University School of Medicine
2000 - present	Microbiology Course Director New York University School of Medicine
1987 - 1997	Co-Director, Cancer Center Core Clinical (BRM) Laboratory, New York University Medical Center
1984-1993	Director, Microbiology Graduate Training Program, New York University School of Medicine
1968-1973	Associate Professor of Microbiology New York University School of Medicine
1968-1973	US Public Health Service Research Career Development Award
1965-1968	Assistant Professor of Microbiology New York University School of Medicine
1962-1964	Head of Laboratory, Institute of Virology Czechoslovak Academy of Sciences, Bratislava
1959-1962	Fellow of the Czechoslovak Academy of Sciences, Bratislava
1957-1959	Research Associate Inst. of Virology, Czechoslovak Academy of Sciences, Bratislava

Honors:

Recognition Award, Japanese Inflammation Society, 1989  
Outstanding Investigator Grant, National Cancer Institute, 1991  
Elliott Osserman Award in Cancer Research, 1996  
Fellow of the American Association for the Advancement of Science, 1997  
Distinguished Alumnus Award and Medal, Comenius University, Bratislava, 2001  
Biotechnology Achievement Award, NYU School of Medicine, 2002  
Honorary Lifetime Membership Award of the International Cytokine Society, 2003  
Honorary Membership, International Society for Interferon & Cytokine Research, 2003  
Included in ISI Highly Cited among 250 most highly cited authors in Immunology category  
Presidential Citation of New York University for contributions to NYU Medical School, 2004

### Editorial Activities:

Editor-in-Chief, Archives of Virology, 1975-1984  
 Associate Editor, Archives of Virology, 1985-1991  
 Associate Editor, Virology, 1977-1979  
 Associate Editor, Interferon (Academic Press), 1979-1988  
 Associate Editor, Journal of Interferon and Cytokine Research, 1980-present  
 Associate Editor, Applied Biochemistry and Biotechnology, 1981-1986  
 Associate Editor, Infection and Immunity, 1983-1985  
 Associate Editor, Antiviral Research, 1984-1988  
 Associate Editor, Natural Immunity and Cell Growth Regulation, 1985-1992  
 Associate Editor, Journal of Immunological Methods, 1986-present  
 Associate Editor, Journal of Immunology, 1987-1989  
 Associate Editor, Lymphokine and Cytokine Research, 1987-1994  
 Advisory Editorial Board member, ISI Atlas in Science: Immunology, 1987-1989  
 Editorial Board member, Journal of Biological Chemistry, 1988-1990  
 Section Editor, Aging: Immunology and Infectious Disease, 1988-1995  
 Editorial Board member, Journal of Cellular Physiology, 1988-present  
 Advisory Editorial Board member, Cytokine, 1989-present  
 Editorial Board member, Biologicals, 1989-1995  
 Editorial Board member, Acta Virologica, 1991-present  
 Associate Editor, International Archives of Allergy and Immunology, 1992-1997  
 Editorial Board member, Cellular Immunology, 1992-1996  
 Editorial Board member, Folia Biologica (Prague), 1993-present  
 Contributing Editor, Journal of Inflammation, 1994-1998  
 Editor-in-Chief, Cytokine and Growth Factor Reviews, 1995-present  
 Editorial Board member, Cytokines, Cellular & Molecular Therapy, 1998-present

### Selected National and International Committees:

American Cancer Society Advisory Committee on Microbiology and Virology,  
 Member 1981-1984; Chairman 1984  
  
 American Cancer Society Advisory Committee on Interferon, 1984-1988  
  
 WHO Committee on Interferon Nomenclature, Member 1979-1985,  
 Chairman 1981-1985  
  
 WHO Consultant on biological standardization, 1978-1989  
  
 Scientific Advisory Board, Max-Planck-Institute for Biochemistry,  
 Munich, German Federal Republic, 1987-1995  
  
 International Advisory Board, Czech Immunological Society, 1991-present  
  
 Member, American Heart Association Fellowship Review Committee, 1992-1994  
  
 Member, Israel Cancer Research Fund Scientific Review Panel, 1993-1996  
  
 National Cancer Institute Cancer Center and Research Programs Review  
 Committee (Subcommittee C), 1994  
  
 National Cancer Institute Scientific Review Group, Subcommittee C, 1997  
  
 Morehouse School of Medicine/ Univ. of Alabama Cancer Center External Advisory  
 Committee, 2001-present



#### Recent Medical School and University Committees:

President's Committee on Sponsored Research  
 University Committee on Institutional Responsibility  
 University Confidentiality Issues Committee  
 Medical School Technology Transfer and Patents Committee  
 General Clinical Research Center Executive Advisory Committee  
 School of Medicine Grievance Committee  
 School of Medicine Committee on Conflict of Interest (Chairman)  
 Center for AIDS Research Advisory Board

#### Membership in Professional Societies:

American Society for Microbiology  
 American Association for the Advancement of Science (Fellow)  
 American Association of Immunologists  
 International Society for Interferon and Cytokine Research  
 Czech Immunological Society  
 International Cytokine Society (President, 1997-98)  
 Czechoslovak Society for Microbiology

#### Books Edited:

Regulatory Functions of Interferon. New York Academy of Sciences, 1980  
 (edited with T.C. Merigan and I. Gresser)  
  
 The Clinical Potential of Interferons. University of Tokyo Press, 1982  
 (edited with R. Kono)  
  
 Interferons and the Immune System. Elsevier, 1984 (edited with E. De Maeyer)  
  
 Tumor Necrosis Factors: Structure, Function, and Mechanisms of Action.  
 Marcel Dekker, Inc., 1991 (edited with B.B. Aggarwal)  
  
 Cytokine Reference. Academic Press, 2000  
 (edited with J.J. Oppenheim, M. Feldmann *et al.*)

#### Major Conferences Organized:

New York Heart Association Symposium on Interferon, New York, 1969  
  
 New York Academy of Sciences Conference "Regulatory Functions of Interferons",  
 New York, 1979 (co-chaired with Ion Gresser and Thomas C. Merigan)  
  
 Congress on Cytokine Research, Boston, 1986 (co-chaired with Stanley Cohen)  
  
 Second Congress on Cytokine Research and Growth Factors, Philadelphia, 1987  
 (co-chaired with Stanley Cohen and Renato Baserga)  
  
 Seventh International Lymphokine Workshop, San Antonio, 1990  
 (co-chaired with Lawrence Lachman and William Farrar)  
  
 Seventh Annual Conference of the International Cytokine Society, Hilton Head, SC,  
 1999 (co-chaired with Bruce Beutler, Scott Durum and Ann Richmond)  
  
 Cytokine-Regulated Gene Expression at the Crossroads of Innate Immunity, Inflammation  
 and Fertility. New York, NY, 2003 (co-chaired with Bruce Cronstein and Tibor Glant)

Current Teaching Activities:

Microbiology Course for medical and graduate students (Course Director and lecturer)  
 Immunology Course for medical students (lecturer)  
 Immunology Course for graduate students (lecturer)  
 Foundations in Cell and Molecular Biology Course for graduate students (lecturer)

Graduate Students and Fellows:

Ph.D. thesis advisor to 29 students who completed their doctorates between 1971-2000.

Past students and fellows include: Toby Rossman, Mun H. Ng, Douglas R. Lowy, Brian Berman, Masayoshi Kohase, Edward A. Havell, Shudo Yamazaki, Paul Anderson, Teresa G. Hayes, Masafumi Tsujimoto, Rena Feinman, Vito J. Palombella, Jian-Xin Lin, Yihong Zhang, Luiz F. L. Reis, Tae Ho Lee, Jedd D. Wolchok, Gene W. Lee, Peter J. Sciavolino, Ryutaro Kamijo, Igor C. Oliveira, Deborah Shapiro, Lidija Klampfer, Anne Altmeyer, Ilja Vietor, Paul Schwenger, John Gerecitano, Adam R. Goodman, David M. Poppers and Deborah Alpert.

U.S. Patents:

4,460,685	Method of enhancing the production of human $\gamma$ interferon
4,666,865	Immunoassay for biologically active human interferon-gamma employing unique monoclonal antibodies
4,835,256	Human gamma interferon polypeptide having glutamine as the ninth n-terminal amino acid
5,386,013	Tumor necrosis factor-induced protein TSG-6
5,426,181	DNA encoding cytokine-induced protein, TSG-14
5,656,272	Methods of treating TNF- $\alpha$ -mediated Crohn's disease using chimeric anti-TNF antibodies
5,698,195	Methods of treating rheumatoid arthritis using chimeric anti-TNF antibodies
5,846,763	DNA encoding tumor necrosis factor stimulated gene 6 (TSG-6)
5,919,452	Methods of treating TNF- $\alpha$ -mediated disease using chimeric anti-TNF antibodies
6,210,905 B1	Tumor necrosis factor stimulated gene 6 (TSG-6) binding molecules
6,277,969 B1	Anti-TNF antibodies and peptides of human tumor necrosis factor
6,284,471	Anti-TNF $\alpha$ antibodies and assays employing anti-TNF $\alpha$ antibodies
6,313,091	Pharmaceutical compositions containing TSG-6 for treating inflammatory diseases and cancer-related pathologies
6,518,401 B2	Tumor necrosis factor stimulated gene 6 (TSG-6) protein
6,790,444	Anti-TNF antibodies and peptides of human tumor necrosis factor

Publications:

1. Vilcek, J., Mayerova, A., Mayer, V. and Kociskova, D.: On the incidence and methods of assay of adenoviruses. *Cas. Lek. Ces.* 714-717, 1959 (in Slovak).
2. Vilcek, J. and Mayer, V.: Use of tissue culture in medical virology. *Lek. Obzor.* 8, 321-329, 1959 (in Slovak).
3. Libikova, H. and Vilcek, J.: A simple neutralization test for viruses of the tick-borne encephalitis group, depending on a complete cytopathic effect in HeLa cells. (Preliminary Report). *Acta. Virol.* 3, 181-183, 1959.
4. Mayer, V., Mayerova, A. and Vilcek, J.: Some aspects of the use of a transformed line of human amniotic cells in virological work. *Acta. Virol.* 3, (Suppl.) 51-54, 1959.
5. Libikova, H. and Vilcek, J.: Assay of the tick-borne encephalitis virus in HeLa cells. I. Cytopathic effect and metabolic inhibition. *Acta. Virol.* 4, 165-172, 1960.
6. Vilcek, J.: Interference between tick-borne encephalitis and Western equine encephalomyelitis viruses in chick embryo tissue cultures. *Acta. Virol.* 4, 308-310, 1960.
7. Vilcek, J.: An interferon-like substance released from tick-borne encephalitis virus-infected chick embryo fibroblast cells. *Nature (London)* 187, 73-74, 1960.
8. Libikova, H., Blaskovic, D., Vilcek, J., Rehacek, J., Gresikova, M., Macicka, O., Ernek, E. and Mayer, V.: Incidence of antibodies against tick-borne encephalitis virus in man and domestic animals in a small village in a natural focus. *J. Hyg. Epidem. Microbiol. Immunol. (Prague)* 4, 327-332, 1960.
9. Libikova, H. and Vilcek, J.: Assay of the tick-borne encephalitis virus in HeLa cells. II. Neutralization tests using the cytopathic and metabolic inhibition effects. *Acta Virol.* 5, 379-385, 1961.
10. Vilcek, J.: Studies on an interferon from tick-borne encephalitis virus-infected cells (IF). I. Appearance of IFN in infected chick embryo cell cultures. *Acta Virol.* 5, 278-282, 1961.
11. Zemla, J. and Vilcek, J.: Studies on an interferon from tick-borne encephalitis virus-infected cells (IF). II. Physical and chemical properties of IF. *Acta Virol.* 5, 367-372, 1961.
12. Zemla, J. and Vilcek, J.: Concentration and partial purification of an interferon. *Acta Virol.* 5, 129, 1961.
13. Mayer, V., Zemla, J. and Vilcek, J.: A method for the production of an interferon in chick embryo cells. *Acta Virol.* 5, 130, 1961.
14. Mayer, V., Sokol, F. and Vilcek, J.: Effect of interferon on the infection with Eastern equine encephalomyelitis (EEE) virus and its ribonucleic acid (RNA). *Acta Virol.* 5, 264, 1961.
15. Vilcek, J. and Rada, B.: Studies on an interferon from tick-borne encephalitis virus-infected cells (IF). III. Antiviral action of IF. *Acta Virol.* 6, 9-16, 1962.
16. Vilcek, J.: Studies on an interferon from tick-borne encephalitis virus-infected cells (IF). IV. Comparison of IF with interferon from influenza virus-infected cells. *Acta Virol.* 6, 144-150, 1962.

17. Mayer, V., Sokol, F. and Vilcek, J.: Infection of interferon treated cells with Eastern equine encephalomyelitis virus and its ribonucleic acid. *Virology* 15, 359-362, 1962.
18. Vilcek, J.: Interferon from tick-borne encephalitis virus-infected cells. Publishing House of the Slovak Acad. Sci., Bratislava 1962 (in Slovak).
19. Vilcek, J. and Rada, B.: Appearance of an interferon in tick-borne encephalitis virus-infected chick embryo cell cultures and its action on various viruses. In: *Biology of Viruses of the Tick-borne Encephalitis Complex. Proceedings of a Symposium*, pp. 118-122, Czechoslovak Acad. Sci., Praha and Academic Press, Inc., 1962.
20. Zemla, J. and Vilcek, J.: Physical and chemical properties of an interferon from tick-borne encephalitis virus-infected chick embryo cells. In: *Biology of Viruses of the Tick-borne Encephalitis Complex. Proceedings of a Symposium*, pp. 124-127, Czechoslovak Acad. Sci., Praha and Academic Press, Inc., 1962.
21. Libikova, H. and Vilcek, J.: Metabolic inhibition test for the tick-borne encephalitis complex viruses. In: *Biology of Viruses of the Tick-borne Encephalitis Complex. Proceedings of a Symposium*, pp. 212-214, Czechoslovak Acad. Sci., Praha and Academic Press, Inc., 1962.
22. Manolova, N., Gresikova, M., Vilcek, J., Stefanova, Z., Panayotov, P. and Rusakyevev, M.: Virological studies of the natural foci of tick-borne encephalitis (TE) in Bulgaria. I. Attempts to isolate TE virus from ticks, small rodents and birds in a natural focus in Bulgaria. *Bull. Inst. Microbiol. (Sofia)* 14, 51-54, 1962 (in Russian).
23. Gresikova, M., Rehacek, J., Andonov, P., Vilcek, J., Velichkov, V., Pavlov, P., Macicka, O., Stefanova, Z., Manolova, N. and Rusakyevev, M.: Assay of neutralization antibodies in man and domestic animals in a natural focus of tick-borne encephalitis in Bulgaria. *Bull. Inst. Microbiol. (Sofia)* 14, 63-67, 1962 (in Russian).
24. Vilcek, J.: Studies on an interferon from tick-borne encephalitis virus-infected cells. V. Failure of thermally inactivated virus to induce or to influence interferon formation. *Acta Virol.* 7, 107-115, 1963.
25. Vilcek, J. and Stancek, D.: Formation and properties of interferon in the brain of tick-borne encephalitis virus-infected mice. *Acta Virol.* 7, 331-338, 1963.
26. Vilcek, J. and Stancek, D.: Unresponsiveness to the action of interferon developed in persistently infected L cells. *Life Sciences* 2, 895-901, 1963.
27. Vilcek, J.: Interferon: its formation, properties and significance in various types of interaction between viruses and cells. *Uspekhi Sovrem. Biol.* 55, 391-410, 1963 (in Russian).
28. Szanto, J., Albrecht, P. and Vilcek, J.: Investigations on latent infections in the HeLa cell - Newcastle disease virus system. *Acta Virol.* 7, 297-307, 1963.
29. Albrecht, P., Vilcek, J. and Mayer, V.: The process of multiplication of the tick-borne encephalitis virus in sensitive cells. *Bratislavske Lek. Listy* 43, 88-96, 1963 (in Slovak).
30. Sokol, F., Neurath, A.R. and Vilcek, J.: Formation of incomplete Sendai virus in embryonated eggs. *Acta Virol.* 8, 59-67, 1964.
31. Vilcek, J., Tomisova, J., Sokol, F. and Hana, L.: Concentration and partial purification of interferon from mouse brains. *Acta Virol.* 8, 76-79, 1964.

32. Vilcek, J.: Production of interferon by newborn and adult mice infected with Sindbis virus. *Virology* 22, 651-652, 1964.
33. Vilcek, J.: Use of interference for the assay of group B arboviruses in chick embryo cells. *Acta Virol.* 8, 417-423, 1964.
34. Vilcek, J.: Interferon. In: Great Medical Encyclopedia, Second Ed., Vol. 36 (Supplement), pp. 479-485. Soviet Academy of Medical Sciences, Moscow 1964 (in Russian).
35. Stanek, D. and Vilcek, J.: The role of interferon in tick-borne encephalitis virus-infected L cells. I. Acute infection. *Acta Virol.* 9, 1-8, 1965.
36. Stanek, D. and Vilcek, J.: The role of interferon in tick-borne encephalitis virus-infected L cells. II. Persistent infection. *Acta Virol.* 9, 9-17, 1965.
37. Vilcek, J.: Interferon, tumor viruses and tumor cells. In: Viruses, Cancer, Immunity, pp. 196-205. Medgiz, Moscow, 1965 (in Russian).
38. Vilcek, J. and Freer, J.H.: Inhibition of Sindbis virus plaque formation by extracts of *Escherichia coli*. *J. Bacteriol.* 92, 1716-1722, 1966.
39. Vilcek, J. and Lowy, D.R.: Interaction of interferon with chick embryo cells. *Archiv. Ges. Virusforsch.* 21, 253-264, 1967.
40. Vilcek, J. and Ng, M.H.: Potentiation of the action of interferon by extracts of *Escherichia coli*. *Virology* 31, 552-555, 1967.
41. Friedman-Kien, A.E. and Vilcek, J.: Induction of interference and interferon synthesis by non-replicating molluscum contagiosum virus. *J. Immunol.* 99, 1092-1098, 1967.
42. Vilcek, J., Ng, M.H. and Rossmann, T.G.: Studies on the action of interferon in cellular and cell-free systems. In: The Interferons. G. Rita (ed.), Academic Press, Inc., pp. 185-196, 1968.
43. Vilcek, J., Ng, M.H., Friedman-Kien, A.E. and Krawciw, T.: Induction of interferon synthesis by synthetic double-stranded polynucleotides. *J. Virol.* 2, 648-650, 1968.
44. Jahiel, R.I., Vilcek, J., Nussenzweig, R. and Vanderberg, J.: Interferon inducers protect mice against *Plasmodium berghei* malaria. *Science* 161, 802-804, 1968.
45. Jahiel, R.I., Nussenzweig, R.S., Vanderberg, J. and Vilcek, J.: Antimalarial effect of interferon inducers at different stages of development of *Plasmodium berghei* in the mouse. *Nature* 220, 710-711, 1968.
46. Robinson, H.J., Jr., Prose, P.H., Friedman-Kien, A.E., Neistein, S. and Vilcek, J.: The molluscum contagiosum virus in chick embryo cell cultures: An electron microscopic study. *J. Invest. Dermatol.* 52, 51-56, 1969.
47. Vilcek, J.: Interferon. *Virology Monographs*, Vol. 6, Springer-Verlag, New York, 1969.
48. Jahiel, R.I., Nussenzweig, R.S., Vilcek, J. and Vanderberg, J.: Protective effect of interferon inducers on *Plasmodium berghei* malaria. *Am. J. Trop. Med. Hyg.* 18, 823-835, 1969.
49. Prose, P.H., Friedman-Kien, A.E. and Vilcek, J.: Molluscum contagiosum virus in adult human skin cultures: An electron microscopic study. *Am. J. Path.* 55, 349-357, 1969.

50. Vilcek, J., Rossman, T.G. and Varacalli, F.: Differential effects of actinomycin D and puromycin on the release of interferon induced by double-stranded RNA. *Nature* 222, 682-683, 1969.
51. Rossman, T.G. and Vilcek, J.: Influence of the rate of cell growth and cell density on interferon action in chick embryo cells. *J. Virol.* 4, 7-11, 1969.
52. Vilcek, J. and Jahiel, R.I.: Action of interferon and its inducers against nonviral infectious agents. *Arch. Intern. Med.* 126, 69-77, 1970.
53. Vilcek, J.: Cellular mechanisms of interferon production. *J. Gen. Physiol.* 56(2), 76s-89s, 1970.
54. Vilcek, J., Rossman, T.G. and Friedman-Kien, A.E.: Blocking of interferon action by a component of animal serum and by insulin. In: *L'Interferon. Colloques de l'Institut National de la Sante et de la Recherche Medicale*, pp. 243-250, Paris, 1970.
55. Jahiel, R.I., Nussenzweig, R., Vilcek, J. and Vanderberg, J.: Protection against experimental murine malaria with interferon inducers. In: *L'Interferon. Colloques de l'Institut National de la Sante et de la Recherche Medicale*, pp. 335-342. Paris, 1970.
56. Vilcek, J.: Metabolic determinants of the induction of interferon by a synthetic double-stranded polynucleotide in rabbit kidney cells. *Ann. N.Y. Acad. Sci.*, 173(1), 390-403, 1970.
57. Vilcek, J.: Studies on the mechanisms of interferon induction by poly I-poly C. In: *Interferon*. Y. Nagano and H.B. Levy (eds.), pp. 165-176. Igaku Shoin Ltd., Tokyo, 1970.
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